

Application No: 09/627,190
Attorney's Docket No: US 000064

CLAIM AMENDMENTS

This listing of claims will replace all prior versions and listings of claims in the application.

Listing of Claims

1. (Currently Amended) A transmitter for transmitting a stream of known symbols and unknown symbols through a transmission channel to a first receiver that receives the transmitted stream of known symbols and unknown symbols distorted by intersymbol interference (ISI) and reduces therein an ISI signal, wherein the transmitter ~~comprises~~ comprising:

a known symbol distribution controller capable of inserting a plurality of known symbol clusters into an outgoing stream of unknown symbols in an optimum distribution in order to improve the performance of the first receiver; ~~wherein~~, said known symbol distribution controller ~~is being~~ capable of determining a channel order, L , associated with the receiver; and wherein

said transmitted stream of known symbols and unknown symbols is received by a plurality of receivers;

the known symbol distribution controller is capable of determining a plurality of channel orders, L_1 through L_n , each channel order being associated with a corresponding one of said plurality of receivers; and

said known symbol distribution controller determines the optimum distribution according to a value of the channel order.

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2. (Cancelled).

3. (Cancelled).

4. (Previously Presented) The transmitter as set forth in Claim 1 wherein said known symbol distribution controller determines a minimum size of each of the plurality of known symbol clusters according to the value of the channel order.

5. (Cancelled).

6. (Currently amended) The transmitter as set forth in Claim 5 1 wherein said known symbol distribution controller is capable of determining a maximum one of the plurality of channel orders.

7. (Original) The transmitter as set forth in Claim 6 wherein said known symbol distribution controller determines the optimum distribution according to a value of the maximum channel order.

8. (Previously Presented) The transmitter as set forth in Claim 7 wherein the known symbol distribution controller determines a minimum size of each of the plurality of known symbol clusters transmitted to all of the plurality of receivers according to the value of the maximum channel order.

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9. (Previously Presented) A network comprising:

a plurality of receivers, each of said receivers capable of receiving from a transmission channel an incoming stream of known symbols and unknown symbols distorted by intersymbol interference (ISI), wherein each of said receivers comprises a block decision feedback equalizer capable of receiving the transmitted stream of known symbols and unknown symbols distorted by intersymbol interference (ISI) and reducing therein an ISI signal; and

a transmitter for transmitting a stream of known symbols and unknown symbols through a transmission channel to a first receiver, wherein the transmitter comprises a known symbol distribution controller capable of inserting a plurality of known symbol clusters into an outgoing stream of unknown symbols in an optimum distribution in order to improve the performance of a first receiver, wherein said known symbol distribution controller is capable of determining a channel order, L , associated with the first receiver, and wherein said known symbol distribution controller determines the optimum distribution according to a value of the channel order.

10. (Cancelled).

11. (Cancelled).

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12. (Previously Presented) The network as set forth in Claim 9 wherein said known symbol distribution controller determines a minimum size of each of the plurality of known symbol clusters according to the value of the channel order.

13. (Original) The network as set forth in Claim 9 wherein said transmitted stream of known symbols and unknown symbols is received by the plurality of receivers and wherein the known symbol distribution controller is capable of determining a plurality of channel orders, L_1 through L_n , wherein each channel order is associated with a corresponding one of said plurality of receivers.

14. (Original) The network as set forth in Claim 13 wherein said known symbol distribution controller is capable of determining a maximum one of the plurality of channel orders.

15. (Original) The network as set forth in Claim 14 wherein said known symbol distribution controller determines the optimum distribution according to a value of the maximum channel order.

16. (Previously Presented) The network as set forth in Claim 15 wherein the known symbol distribution controller determines a minimum size of each of the plurality of known symbol clusters transmitted to all of the plurality of receivers according to the value of the maximum channel order.

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17. (Previously Presented) For use in a network comprising a transmitter and a plurality of receivers, wherein each receiver receives from a transmission channel an incoming stream of known symbols and unknown symbols distorted by intersymbol interference (ISI), and wherein each receiver comprises a block decision feedback equalizer capable of receiving the transmitted stream of known symbols and unknown symbols distorted by intersymbol interference (ISI) and reducing therein an ISI signal, a method of transmitting the known symbols and unknown symbols comprising the steps of:

inserting a plurality of known symbol clusters into an outgoing stream of unknown symbols in an optimum distribution capable of improving the performance of a first one of the receivers;

transmitting the stream of known symbols and unknown symbols according to the optimum distribution;

determining a plurality of channel orders, L_1 through L_n , wherein each channel order is associated with a corresponding one of said plurality of receivers; and

determining a maximum one of the plurality of channel orders.

18. (Cancelled).

19. (Previously Presented) The method as set forth in Claim 17 further comprising the step of determining the optimum distribution according to a value of the maximum channel order.

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20. (Original) The method as set forth in Claim 19 further comprising the step of determining a minimum size of each of the plurality of known symbol clusters transmitted to all of the plurality of receivers according to the value of the maximum channel order.

21. (Previously Presented) The transmitter of Claim 1, wherein the known symbol distribution controller is capable of inserting the plurality of known symbol clusters into a plurality of positions in the outgoing stream of unknown symbols.

22. (Previously Presented) The network of Claim 9, wherein the known symbol distribution controller is capable of inserting the plurality of known symbol clusters into a plurality of positions in the outgoing stream of unknown symbols.

23. (Previously Presented) The network of Claim 9, wherein the known symbol distribution controller determines a minimum size of each of the plurality of known symbol clusters according to the value of the channel order.

24. (Previously Presented) The method of Claim 17, wherein transmitting the stream of known symbols and unknown symbols comprises inserting the plurality of known symbol clusters into a plurality of positions in the stream.

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25. (Previously Presented) The method Claim 17, further comprising determining a minimum size of each of the plurality of known symbol clusters according to the value of the maximum channel order.